



NEW PRODUCT INFORMATION

HF TRANSCEIVER

IC-F8100



Controller attached version (#01)
Above photo includes optional MB-126

Icom proudly announces the debut of the new HF land mobile transceiver, IC-F8100. The IC-F8100 is designed for long distance communication needs for people working in remote sparsely populated areas, or developing countries/areas where telephone communication is inadequate.

The IC-F8100 has a rugged, enclosed structure to protect it from the intrusion by sand, dust and water. The IC-F8100's controller can be selectable from three versions to suit multi-way use/installation; controller attached to the RF unit, detached remote controller and remote-controller microphone.

The IC-F8100 also provides ALE and Selcall capabilities and an improved user-interface allows the operator to make these calls much easier. A new optional Junction Box, AD-119 provides various interfaces with PC, GPS and antenna tuner and has an internal space to install an HF data modem.

MAJOR SELLING POINTS

- *Three versions of controller configurations*
- *ALE (Automatic Link Establishment) and Selcall capability*
- *Fanless, enclosed structure and compact body*
- *125W of RF output power and high duty cycle operation*
- *PC connection and USB remote control operation (Optional AD-119 required)*
- *"Clear talk function" improves readability of received signal*
- *Numerous operating modes – SSB, AM, CW and Data**
(* For Data mode operation, HF data modem is required)

FEATURES

Three versions of controller configurations

Three versions of controller configurations are selectable to suit almost any way of use/installation that may be required. For detached controller version (#02) or remote-controller microphone version (#03), a separation cable is required separately. The separation cable length is selectable from 1.9m (6.2ft) to 8m (26.2ft).

Controller attached configuration (#01)

Ideal for standard desktop use or quick set-up in a field station.

Detached controller configuration (#02)

Stow the RF unit in a place of convenience during in-vehicle installation or where space is at a premium.

Remote-controller microphone configuration (#03)

Increases the user's ability to operate more features of the radio safely, especially during mobile operation.

ALE (Automatic Link Establishment) capability

The ALE is a system which automatically selects the most suitable channel and establishes a communication link. ALE provides interoperability with other manufactures compliant with MIL-STD-188-141-B (Appendix A) ALE.

ALE individual call, net call, sounding and AMD (Automatic message display) are available.

Selcall (Selective calling) capability

The IC-F8100 offers CCIR493 based 4-digit/6-digit open selcall and 4-digit/6-digit Icom selcall (F7000 compatible) system. 6-digit open selcall system provides interoperability with other manufactures. Selcall allows you to make selective calling, phone call, message call, position call, status call, emergency call and channel test call.

Fanless, enclosed structure and compact body

The IC-F8100 has a fanless, enclosed structure securely sealed from intrusion by all potential elements and visibly more compact than the IC-F7000 and competing models. In fact, the IC-F8100, CFU-F8100 and AD-119 have further proof of durability, having been tested to MIL-STD-810-G and IP54 ratings. Also, most of connection cables and connectors employ IP54 sealing.

125W of powerful RF output

A full 125W output power at full duty cycle voice mode operation is possible with the fanless design. 25% duty cycle operation (Max. 5 minutes continuous transmission) is possible for the data mode.

However, when used with an optional external cooling fan unit, CFU-F8100, the IC-F8100 ensures full duty cycle data and voice mode operations for absolute reliability during long continuous transmit cycles or for operation in hot climates where the radio may be installed in enclosed areas.

Data communications

When used with an optional Junction Box, AD-119, the AD-119 has an installation space to fit a high speed data modem unit* and allows the operator to connect a PC via RS-232C cable (9-pin). In ideal propagation conditions, data speeds of up to 9600bps are possible for reliable and fast HF e-mail operation.

* Recommended partner option, model name to be announced.

GPS receiver connection

When connected an external GPS receiver via the optional Junction Box, the IC-F8100 can send your accurate position information to another station and shows position information, time, altitude and heading of movement with a GPS icon on the display.



Detached controller version (#02)



Remote-controller microphone version (#03)



Fanless, enclosed structure



Optional cooling fan can be fitted.



AD-119 Junction Box for connection with PC, GPS and antenna tuner.

FEATURES

USB remote control

The IC-F8100 can be controlled by a PC through a USB connection via the AD-119. This function uses the CI-V command to control the IC-F8100.

Clear talk function

The clear talk function automatically reduces noise and eliminates the need to be an expert operator at the touch of a button.

User friendly operation

Despite the multitude of features, the IC-F8100 is designed for simple, straight forward operation. According to the operating status, the function (P1–P3) buttons change the assigned functions and show the assigned functions at the bottom line of the display.

Mute functions

The IC-F8100 has 3 types of mute functions, call squelch, S-meter squelch and voice squelch. The call squelch function opens the squelch on when received a selcall or ALE call intended to the station and provides quiet standby while other stations are talking.

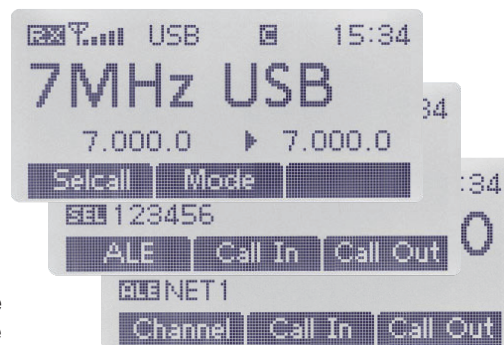
Numerous operating modes

Multiple operating modes – SSB, AM, CW and DATA* are available to allow the maximum communication potential of the IC-F8100 to be realized.

* HF data modem required.

Other features

- 500kHz to 29.999MHz general coverage receiver (Transmit: 1.6MHz to 29.999MHz)
- 500 memory channels
- Optional antenna tuners, AT-140 or recommended partner option AT230 available
- ± 0.3 ppm frequency stability (-30°C to $+60^{\circ}\text{C}$)
- TX Power protection (PA unit high temperature, high SWR, low battery)



Function button menus change as operated.

SPECIFICATIONS

DO NOT incorporate this information in your advertisements until it has been confirmed.

■ GENERAL

- Frequency range :
 - Rx 0.5–29.9999MHz
 - Tx 1.6–29.9999MHz
- Mode : J3E, A3E, A1A, F1B
- Frequency stability : $\pm 0.3\text{ppm}$ (-30°C to $+60^{\circ}\text{C}$)
- Operating temp. range : -30°C to $+60^{\circ}\text{C}$; -22°F to $+140^{\circ}\text{F}$
- Antenna impedance : 50Ω (SO-239)
- Memory channels : 500 channels
- Power supply : 13.8V DC
- requirement : (11.73V–15.87V, negative ground)
- Current drain :
 - Tx (Max. output) Less than 28A
 - Rx (Max. audio) Less than 3A
- Dimensions (WXHXD; Projections not included):
 - Version 01 $174 \times 62 \times 259\text{mm}$
 - HM-192 $67.9 \times 142.7 \times 34.3\text{mm}$
- Weight :
 - Version 01 3.8kg (approx.)
 - HM-192 260g (approx., without microphone hanger)

■ TRANSMITTER

- Output power : High, mid, low
 - J3E/A1A 125, 50, 10W PEP (typical)
 - A3E 30, 12.5, 3W (typical)
 - F1B 75, 50, 10W PEP (typical)
- Spurious emissions : 64dB below PEP (typical)
- Carrier suppression : 50dB below PEP
- Unwanted sideband suppression :
 - 400Hz 55dB below PEP
 - 1kHz 65dB below PEP
- 3rd IMD : 25dB below PEP

■ RECEIVER

- Sensitivity (at 10dB S/N):
 - J3E 0.5–1.5999MHz 14dB μ V (Pre-amp ON)
 - 1.6–29.999MHz –14dB μ V (Pre-amp ON)
 - A3E 0.5–1.5999MHz 22dB μ V
 - 1.6–29.999MHz 6dB μ V
- Squelch sensitivity :
 - J3E Threshold Less than 20dB μ V
 - (13.5MHz) Tight Less than 90dB μ V
 - A3E Threshold Less than 30dB μ V
 - (1.000MHz) Tight Less than 110dB μ V
- Selectivity :
 - J3E 2.4kHz/–6dB, 3.8kHz/–60dB
 - A3E 6kHz/–6dB, 15kHz/–60dB
- Spurious response : More than 70dB
- Spurious response rejection : More than 70dB
- Audio output power : 4.0W at 10% distortion
- (at 13.8V DC) with a 4Ω load
- Clarity variable range : $\pm 200\text{Hz}$

Applicable U.S. Military Specifications & IP Rating

IC-F8100 (#01, #02 including RMK-6, #03 including HM-192),
AD-119, CFU-F8100, MB-126

Standard	MIL 810 G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I-B
Solar Radiation	505.5	I
Rain	506.5	I, III
Humidity	507.5	II
Salt Fog	509.5	–
Dust	510.5	I
Vibration	514.6	I
Shock	516.6	I, IV

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

IC-F8100 (#01, #02 including RMK-6, #03 including HM-192),
AD-119, CFU-F8100

Ingress Protection Standard	
Dust & Water	IP54 (Dust-protection and water resistant)

IC-F8100 contents

- #01 • RF unit with controller head • Microphone, HM-193 • Microphone hanger kit
• External speaker, SP-25 • DC power cable • Spare fuses
- #02 • RF unit • Remote controller head • Separation kit, RMK-6
• Microphone, HM-193 • Microphone hanger kit • External speaker, SP-25
• DC power cable • Spare fuses
- #03 • RF unit • Commandmic, HM-192 • Microphone hanger kit for HM-192
• Extension Microphone connector • External speaker, SP-25
• DC power cable • Spare fuses

OPTIONS

■ HAND MICROPHONE

HM-193 : Same as supplied with the IC-F8100 version 01 and 02. **(New)**

■ REMOTE CONTROL MICROPHONE

HM-192 : Remote microphone and separation kit. Same as supplied with the version 03. Separation cable is required separately. **(New)**

■ REMOTE CONTROLLER KIT

RMK-6 : Remote control kit. Same as supplied with the IC-F8100 version 02. Separation cable is required separately. **(New)**

■ SEPARATION CABLES

OPC-609 : 1.9m separation cable.
 OPC-607 : 3m separation cable.
 OPC-726 : 5m separation cable.
 OPC-608 : 8m separation cable.

One of these cables is required for use with the IC-F8100 version 02 and 03.

■ JUNCTION BOX

AD-119 : Required to connect with PC, GPS and antenna tuner. HF data modem can be installed. OPC-2126 and OPC-2127 connection cables are supplied with the AD-119. **(New)**

■ COOLING FAN UNIT

CFU-F8100 : For high duty cycle operation. **(New)**

■ AUTOMATIC ANTENNA TUNER

AT-140 : Matches the transceiver to a long wire antenna with having antenna and control cable receptacles for easy installation.

■ SHIELDED CONTROL CABLES

OPC-2142 : 10m antenna tuner control cable between AD-119 and AT-140. **(New)**
 OPC-2143 : 5m antenna tuner control cable between AD-119 and AT230. **(New)**

■ EXTERNAL SPEAKERS

SP-25 : External speaker. Compact and easy-to-install. Same as supplied.
 SP-30 : External speaker. 20W rated input power, 30W Max. input.
 SP-10 : Compact size speaker. Input impedance: 8Ω Max. input power: 5W

■ CLONING SOFTWARE

CS-F8100 : Cloning software. Allows quick and simple setting from a PC. **(New)**

■ MOUNTING BRACKET

MB-126 : For mounting the radio to a flat surface. **(New)**

■ RECOMMENDED PARTNER OPTIONS

Automatic tuning antenna, AT230 from Moonraker Australia Pty. Limited
 The AT230 is a 2.6m length mobile mount whip antenna with automatic tuning function. The Antenna matches 2–30MHz continuously. Use the optional OPC-2143 cable and AD-119 junction box for use with the IC-F8100. Continuous CW transmission at high power not guaranteed with AT230.

HF data modem (Model name to be announced)

High speed (9600bps) HF data modem. The HF data modem will be able to be installed in the AD-119 Junction Box.



HM-193



RMK-6



HM-192



AD-119



AT-140



CFU-F8100



OPC-2142

OPC-2143



SP-30

SP-25



MB-126

AUTOMATIC TUNING ANTENNA
 (Moonraker Australia Pty. Limited)

AT230



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